Project WET
Connections to KY
Core Content 4.1

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Elementary

K-2 option:

Mathematics
MA-EP-1.1.1
Students will:
- apply multiple representations (e.g., drawings, manipulatives, base-10 blocks, number lines, expanded form, symbols) to describe whole numbers (0 to 9,999):
- apply multiple representations (e.g., drawings, manipulatives, base-10 blocks, number lines, symbols) to describe fractions (halves, thirds, fourths);
- apply these numbers to represent real-world problems and
- explain how the base 10 number system relates to place value.

DOK 2

MA-EP-1.2.1
Students will apply and describe appropriate strategies for estimating quantities of objects and computational results (limited to addition and subtraction).
DOK2

MA-EP-1.3.1
Students will analyze real-world problems to identify appropriate representations using mathematical operations, and will apply operations to solve real-world problems with the following constraints:
- add and subtract whole numbers with three digits or less;
- multiply whole numbers of 10 or less;
- add and subtract fractions with like denominators less than or equal to four and
- add and subtract decimals related to money.

DOK 2

Additional Elementary Correlations

Mathematics
MA-EP-4.1.1
Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs with two or three sectors, line plots, two-circle Venn diagrams).

DOK 3

MA-04-4.1.1
Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs, line plots, Venn diagrams).
DOK 3

MA-05-4.1.1
Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs, line plots, Venn diagrams, line graphs).
DOK 3

MA-EP-4.1.2
Students will collect data.

MA-04-4.1.2
Students will collect data.

MA-05-4.1.2
Students will collect data (e.g., tallies, surveys) and explain how the skills apply in real-world and mathematical problems.

MA-05-1.1.1
Students will:
- apply multiple representations (e.g., drawings, manipulatives, base-10 blocks, number lines, expanded form, symbols) to represent whole numbers (0 to 99,999,999);
- apply multiple representations (e.g., drawings, manipulatives, base-10 blocks, number lines, symbols) to describe commonly-used fractions, mixed numbers and decimals through thousandths;
- apply these numbers to represent real-world problems and
- explain how the base-10 number system relates to place value.

DOK 2

MA-05-1.2.1
Students will apply and describe appropriate strategies for estimating quantities of objects and computational results in real-world problems.
DOK 2

Social Studies
SS-EP-4.2.1
Students will describe places on Earth’s surface by their physical characteristics (e.g., climate, landforms, bodies of water).

Middle School

Mathematics

MA-06-1.2.1
Students will estimate to solve real-world and mathematical problems with whole numbers, fractions, decimals and percents, checking for reasonable and appropriate computational results.
DOK 2

MA-06-1.3.1
Students will add, subtract, multiply and divide whole numbers, fractions and decimals to solve real-world problems and apply order of operations to simplify numerical expressions. DOK 2

MA-07-1.3.1
Students will add, subtract, multiply and divide whole numbers, fractions and decimals to solve real-world problems and apply order of operations (including positive whole number exponents) to simplify numerical expressions. DOK 2

MA-08-1.3.1
Students will add, subtract, multiply and divide rational numbers to solve real-world problems and apply order of operations (including positive whole number exponents) to simplify numerical expressions.
DOK 2

MA-06-2.1.2
Students will estimate measurements in standard units including fractions and decimals.

MA-07-1.2.1
Students will estimate to solve real-world and mathematical problems with fractions, decimals and percents, checking for reasonable and appropriate computational results. DOK 2

MA-08-1.2.1
Students will estimate to solve real-world and mathematical problems with rational numbers, checking for reasonable and appropriate computational results.
DOK 2

Science

SC-06-4.7.1
Students will describe the consequences of change in one or more abiotic factors on a population within an ecosystem.

The number of organisms an ecosystem can support depends on the resources available and abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition).
DOK 2

Social Studies
SS-06-4.4.3
Students will explain how the natural resources of a place or region impact its political, social and economic development in the present day.

SS-08-4.4.3
Students will explain how the natural resources of a place or region impact its political, social and economic development in the United States prior to Reconstruction.

High School

Mathematics
MA-HS-2.2.1
Students will continue to apply to both real-world and mathematical problems U.S. customary and metric systems of measurement.

Science
SC-HS-4.7.2
Students will:
- evaluate proposed solutions from multiple perspectives to environmental problems caused by human interaction;
- justify positions using evidence/data.

Human beings live within the world's ecosystems. Human activities can deliberately or inadvertently alter the dynamics in ecosystems. These activities can threaten current and future global stability and, if not addressed, ecosystems can be irreversibly affected. DOK 3

SC-HS-4.7.3
Students will:
predict the consequences of changes to any component (atmosphere, solid Earth, oceans, living things) of the Earth System; propose justifiable solutions to global problems. Interactions among the solid Earth, the oceans, the atmosphere and living things have resulted in the ongoing development of a changing Earth system. DOK 3

Extension Correlation

Mathematics

MA-EP-4.3.1
Students will pose questions that can be answered by collecting data.

MA-EP-4.1.2
Students will collect data.

MA-04-4.1.2
Students will collect data.

MA-EP-1.3.1
Students will analyze real-world problems to identify appropriate representations using mathematical operations, and will apply operations to solve real-world problems with the following constraints:

- add and subtract whole numbers with three digits or less;
- multiply whole numbers of 10 or less;
- add and subtract fractions with like denominators less than or equal to four and
- add and subtract decimals related to money.

DOK 2

MA-04-1.3.1
Students will analyze real-world problems to identify appropriate representations using mathematical operations, and will apply operations to solve real-world problems with the following constraints:

- add and subtract whole numbers with four digits or less;
- multiply whole numbers with two digits or less;
- divide whole numbers with three digits or less by single-digit divisors (with or without remainders);
- add and subtract fractions with like denominators less than or equal to 10 and
- add and subtract decimals through hundredths.

DOK 2

MA-05-1.3.1
Students will analyze real-world problems to identify appropriate representations using mathematical operations, and will apply operations to solve real-world problems with the following constraints:

- add, subtract, multiply, and divide whole numbers (less than 100,000,000), using technology where appropriate;
- add and subtract fractions with like denominators through 16, with sums less than or equal to one and
- add and subtract decimals through hundredths.

DOK 2

MA-06-1.3.1
Students will add, subtract, multiply and divide whole numbers, fractions and decimals to solve real-world problems and apply order of operations to simplify numerical expressions. DOK 2

MA-07-1.3.1
Students will add, subtract, multiply and divide whole numbers, fractions and decimals to solve real-world problems and apply order of operations (including positive whole number exponents) to simplify numerical expressions. DOK 2

MA-08-1.3.1
Students will add, subtract, multiply and divide rational numbers to solve real-world problems and apply order of operations (including positive whole number exponents) to simplify numerical expressions. DOK 2

MA-HS-1.3.1
Students will solve real-world and mathematical problems to specified accuracy levels by simplifying expressions with real numbers involving addition, subtraction, multiplication, division, absolute value, integer exponents, roots (square, cube) and factorials.

MA-HS-2.2.1
Students will continue to apply to both real-world and mathematical problems U.S. customary and metric systems of measurement.

MA-HS-4.3.2
Students will design simple experiments or investigations to collect data to answer questions of interest.